

Translation

PATENT COOPERATION TREATY

PCT/DE2003/002991



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P11786WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/002991	International filing date (<i>day/month/year</i>) 09 September 2003 (09.09.2003)	Priority date (<i>day/month/year</i>) 14 October 2002 (14.10.2002)
International Patent Classification (IPC) or national classification and IPC H05K 7/14		
Applicant SIEMENS AKTIENGESELLSCHAFT		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>7</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 02 April 2004 (02.04.2004)	Date of completion of this report 30 July 2004 (30.07.2004)
Name and mailing address of the IPEA/EP	Authorized officer
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I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

- ☒ the international application as originally filed.
- ☒ the description, pages 3-21, as originally filed,
pages 3-21, filed with the demand,
pages 1, 2, 2a, filed with the letter of 15 July 2004 (15.07.2004),
pages _____, filed with the letter of _____.
- ☒ the claims, Nos. _____, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. 1-18, filed with the letter of 15 July 2004 (15.07.2004),
Nos. _____, filed with the letter of _____.
- ☒ the drawings, sheets/fig 1/17-17/17, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

The amendments submitted with the letter of 15 July 2004 do not introduce substantive matter that goes beyond the disclosure in the international application as filed and therefore meet the requirements of PCT Article 34(2)(b).

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-18	YES
	Claims		NO
Inventive step (IS)	Claims	1-18	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-18	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: US-A-5 272 593 (JAKOB GERT ET AL) 21 December 1993 (1993-12-21)

D2: US-A-4 785 379 (GOODRICH MELVILLE A) 15 November 1988 (1988-11-15)

Document D1 is considered the prior art closest to the subject matter of claim 1 and discloses (the references between parentheses refer to that document):

A method for assembling a circuit module, in which a circuit board (10) is introduced into the main body of a housing (41) with the flat sides of the board facing the walls of the housing, the main body of the housing being sealed with the aid of cover elements (37).

The subject matter of claim 1 thus differs from the known method in that an elongated pressure pad is introduced between the circuit board and the main body of the housing, the pressure pad applying a compressive force to one of the flat sides of the

circuit board.

Although the arrangement as per D1 comprises a pressure pad (49), the compressive force is not applied to one of the flat sides of the circuit board, but to a cooling frame (11) behind. In addition, the pressure pad is secured in the main body of the housing and therefore is not introduced between the circuit board and the main body of the housing.

The subject matter of claim 1 is thus novel (PCT Article 33(2)).

The present invention can therefore be considered to address the problem of securing the circuit board in the main body of the housing.

The solution to this problem proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)), since the other documents cited in the search report contain nothing to indicate the specific solution as per claim 1. Document D2 discloses a method in which a pressure pad presses directly on the flat side of a circuit board, but the pressure pad is also secured in the main body of the housing and is not introduced between the circuit board and the holder.

Claims 2 to 17 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step. Claim 18 concerns a circuit module that can be produced using a method according to claim 1. Since the circuit module has all the technical features of the solution to the

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aforementioned problem, this claim also meets the
PCT requirements in respect of novelty and inventive
step.